METHOD AND APPARATUS FOR HIGH-SPEED MICROFLUIDIC DISPENSING USING TEXT FILE CONTROL

Abstract of the Disclosure

The invention relates to methods and systems for high-speed precision dispensing and/or aspirating of microfluidic quantities of reagents and other liquids. The operation of the systems is controlled by data accessed from a customized user-defined text file. Advantageously, the use of such text file control allows high-speed precision dispensing of one or more reagents with a wide dynamic range of dispense volumes in complex combinatorial patterns, ratios and arrays onto or into multiple predetermined locations of a desired target or substrate. This is particularly advantageous when a large number of permutations of different reagent and permutations of reagent volume ratios are involved. The systems may be operated in a high frequency modulated mode to further improve accuracy and reliability.

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